Consumer Knowledge and Perception Study on Imitation Dairy Products

GENERAL SUMMARY

APRIL 1992

Province of British Columbia
Ministry of Agriculture, Fisheries and Food

REPORT

CONSUMER KNOWLEDGE AND PERCEPTION STUDY ON IMITATION DAIRY PRODUCTS GENERAL SUMMARY

APRIL 1992

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MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
CLOVERDALE, B.C.

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Specifically, we would like to thank the individuals who comprised the Consumer Knowledge And Perceptions Review Committee for their collaboration with the project team throughout:

Mr. Earl Jenstad, Manager, Dairy Industry Program
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Ms. Gunta Vitins, Trade Development Officer
Ministry of Agriculture, Fisheries and Food

Ms. J. Ann Carrow, Director, Nutrition Branch
Ministry of Health

Mr. Michael Taylor, Policy Specialist
Ministry of Labour and Consumer Services.

Lastly, the *respondents* must be thanked. These are members of the B.C. public who participated in this survey and who provided candid opinions and expressions of their beliefs regarding imitation dairy products. Without this cooperation, studies such as this one would not be possible.

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I

FOREWORD

A. BACKGROUND

The Imitation Milk Products Review Committee was established in September 1990 to examine issues relating to the production, quality and sale of imitation dairy products in British Columbia. In particular, these issues relate to national and international trade, nutrition, labelling and the pure food image of dairy products.

A study was conducted by the committee in 1990/91 which identified a number of subjects of concern to consumers and industry:

- Consumer choice of alternatives to dairy products;
- Nutritional issues related to dairy and imitation dairy products;
- Quality standards for imitation dairy products;
- Labelling and advertising of imitation dairy products;
- Notice of use of imitation dairy products in the food services sector; and,
- Consumer concerns regarding government regulations pertaining to the sale of imitation dairy products.

In order to develop recommendations for policies, regulations and legislative changes that will affect imitation dairy products in British Columbia, the committee requires additional information regarding consumers' knowledge, use and perceptions of imitation dairy products. In addition, there is a need for an economic impact analysis of the manufacturing and marketing of imitation dairy products on the dairy industry in B.C. With this in mind, the market research firm of Canadian Facts and its associate company, the management consulting firm of Peat Marwick Stevenson & Kellogg, have been commissioned to conduct a multi-phase research study.

For the marketing research component of this project, four separate phases were undertaken as follows:

Phase I:	Review Existing Knowledge
Phase II:	In-Depth Interviews With Important Segments
Phase III:	Focus Groups With The General Public
Phase IV:	Telephone Survey Of B.C. Households

The economic impact analysis conducted by Peat Marwick Stevenson & Kellogg was conducted simultaneously with this study and is bound under a separate cover.

This report details the results of Phase IV: Telephone Survey Of B.C. Households.

B. OBJECTIVES

Although the objectives for the overall research project are broad-based, the specific purpose of Phase IV of this study is to assess consumer awareness, usage and attitudes towards imitation dairy products in British Columbia.

In particular, Phase IV objectives are defined as follows:

- To determine consumer perceptions, knowledge, uses, consumption and potential needs for dairy and imitation dairy products;
- To examine reasons and motivations for consuming dairy and imitation dairy products;
- To explore consumer reactions to the terminology used to describe imitation dairy products;
- To identify areas where inconsistencies and inadequacies in nutrient labelling, fat content and health claims on dairy and imitation dairy products lead to consumer confusion;
- To ensure that this study is constructed in such a manner as to be extendible to other provinces and regions, and/or act as a model for a national study;
- To provide an information base on which to build a consumer nutrition education program pertaining to dairy and imitation dairy products;

- To identify any consumer concerns regarding the production, labelling, marketing and consumption of imitation dairy products;
- To determine consumer opinions regarding the regulations affecting the labelling, production and sale of imitation dairy products;
- To explore consumer attitudes towards the use of imitation dairy products by restaurants;
- To assess reactions to the idea that manufacturers of dairy products might also produce imitation milk products;
- To determine consumers' likelihood of purchasing various imitation dairy products at different price points; and,
- To furnish the Imitation Milk Products Review Committee with directional guidance for the development of recommendations regarding the production and sale of imitation milk products in British Columbia.

C. RESEARCH METHODOLOGY

A total of 1,000 telephone interviews was conducted with a random selection of B.C. residents 18 years of age and older between April 3 and 20, 1992.

All telephone interviews were conducted by trained, experienced interviewers working from Canadian Facts' Central Location Telephone (CLT) facility in Vancouver where interviewing is continually supervised and monitored. Interviews were conducted using Canadian Facts' Fully Automated Computer Telephone Surveys (FACTS) network.

A proportionate random sample was selected from a current telephone directory of B.C. residents. A book-plus-digit technique was used for urban areas containing populations of 10,000 or more, while a straight book technique was used for smaller areas. Within each household, a respondent was selected at random using the Most Recent Birthday technique.

The resultant data was edited, coded and processed using Canadian Facts' FACTS network in Vancouver. A copy of the final questionnaire used in the interviewing is appended to this report. For a more detailed description of the methodology employed, see the Appendix To The Methodology.

D. THE STUDY FINDINGS

Results of this research are presented as follows:

Volume I: General Summary

1. Executive Summary
2. General Summary
3. Appendix To the Methodology
4. Appendix
   - A. The Questionnaire
   - B. Interviewer's Instructions

Volume II: Detailed Tables

1. Detailed Tables (Indexed)
2. Appendix
   - A. The Questionnaire
   - B. Interviewer's Instructions

E. NOTE OF CAUTION

Data derived from sample populations is subject to variance. In order not to imply an unwarranted degree of precision, all percentage figures in the General Summary have been rounded to whole numbers; therefore, percentages may not total 100.

Throughout the General Summary, bold underlines have been used to denote unusually high figures at the 90% confidence level. In the text, significant differences between demographic and other variables at this level have been cited.

Further, it should be noted that percentages derived from "actual" bases of less than 100 respondents should be interpreted with caution, while percentages derived from "actual" bases of less than 50 respondents should be interpreted with **extreme** caution.

August 1992

II

EXECUTIVE SUMMARY

The Imitation Milk Products Review Committee was established in September of 1990 to examine issues relating to the production, quality and sale of imitation dairy products in British Columbia. To develop recommendations for policies, regulations and legislative changes that will affect these products, the committee commissioned a multi-phase research study regarding consumers' knowledge, use and perceptions of imitation dairy products. The telephone survey component of the research included 1,000 telephone interviews conducted in April of 1992 with a random selection of adult B.C. residents. The highlights of the survey results follow.

A. ATTITUDES TOWARDS IMITATION DAIRY PRODUCTS

- The majority of B.C. consumers strongly support regulations concerning the manufacturing and selling of imitation dairy products; 99% of consumers agree that regulations in Canada should require that all food products be labelled with lists of ingredients. Most (91%) also agree that imitation dairy products should be clearly labelled *non-dairy* and 81% "agree strongly" that these products should not be permitted to use dairy terminology.

- On the other hand, 65% of consumers claim that they do not have any difficulty distinguishing between *true* dairy products and imitation dairy products. Further to this, the majority of consumers (59%) "strongly agree" that they should have unrestricted choice in buying substitute or imitation dairy products.

- Regarding restaurants, nearly three-quarters "agree strongly" that they be required by law to disclose usage of imitation or substitute dairy products in their food.

- Consumer opinion is divided in terms of the role dairy companies should play in the manufacturing and sale of imitation dairy products; 47% think that the dairy industry should not be involved, while 41% think they should be.

B. PACKAGING AND LABELLING ISSUES

- Ingredient labels are frequently read by consumers and do affect purchase decisions; 39% of consumers "always" and 39% "sometimes" read labels, while 45% consider them to be a "very important" factor in their purchase decision.

- Reasons for reading ingredients include: a search for specific nutritional information (mentioned by 44%), 40% read labels to avoid certain ingredients, 36% are diet conscious, while 23% read labels simply to see what is in the product.

- Fat content information is another important feature of product labels that is "always" read by 33% of consumers; an additional 37% "sometimes" read this information. Consumers think fat content information is "very important" (38%) or "somewhat important" (34%) in food buying decisions.

- Over one-third of consumers prefer all three methods of fat content declaration be present on labels. The remainder have individual preferences: 24% would like it as a percent of total calories, 26% as a percent of weight and 7% by weight alone.

- The majority of consumers feel there is enough information provided on dairy (78%) and imitation dairy product (56%) labels. Over one-fifth feel there is not enough information on the imitation dairy labels, but 24% just don't know.

- Suggestions for improvements on labels include: more nutritional information, to limit technical or scientific terms, show calorie or fat content information, improve accuracy and consistency, list all ingredients and have larger print.

C. DAIRY PRODUCTS CONSUMPTION

- Nearly all the consumers surveyed (98%) include dairy products in their regular diet as follows: cheese is eaten by 93%, 76% drink milk, ice cream (75%), yogurt (63%), butter (60%), sour cream (57%), cottage cheese (55%) and cream (36%).

- Consumption varies. Products consumed daily by those who usually eat them include: milk (78%), butter (61%), cream (40%), cheese (30%) and yogurt (14%). Ice cream, cottage cheese and sour cream are eaten less often.

- Respondents are classified according to dairy products consumption as follows:

  - ***Light Users*: 22% of consumers**—those who eat none, one or two dairy products at least once per week.

  - ***Medium Users:* 47% of consumers**—those who eat three or four dairy products at least once per week.

  - ***Heavy Users*: 31% of consumers**—those who eat five, six, seven or eight dairy products at least once per week.

- About 10% of the adult population may be allergic to or sensitive to dairy products. About one-in-six households have one or more persons with allergies. Interestingly, heavy and medium *dairy* users are found in this group, suggesting that the sensitivity to dairy products may be slight or confined to particular items.

D. MOTIVATIONS FOR DAIRY PRODUCTS CONSUMPTION OR NON-CONSUMPTION

- Motivations for eating dairy products focus on taste preference and health benefits; 75% of consumers like the taste, while 73% mention health or nutritional qualities.

- Only 2% of the population never eat dairy products. About one-in-six consumers eat a limited number; about one-half of this group avoid dairy products due to concerns regarding fat, cholesterol, allergies, vegetarianism, etc. Some simply do not like the taste of some or all dairy products.

- Nearly one-half of consumers say their consumption of dairy products has remained unchanged in the past few years; 22% are eating more, while 29% are eating less. Opinion of the healthfulness of dairy products is polarized. Reasons for *both* increased and decreased consumption focus on diet and health issues.

E. TRIAL AND FREQUENCY OF IMITATION DAIRY PRODUCTS CONSUMPTION

- Of six imitation dairy products discussed in this survey, most respondents tried three: margarine (97%), whipped toppings (76%) and coffee whiteners (62%). Outside these *mainstream* imitation dairy products, trial declines: non-dairy frozen desserts (31%), soy or rice-based drinks (19%) and 14% have tried soy-based cheese.

- Frequency of consumption of imitation dairy products varies. For example, 58% of consumers use margarine once a day or more often, while only 14% use coffee whiteners with the same frequency. Frozen desserts and whipped toppings may be used once a month or less often and those who have tried soy or rice-based drinks or soy-based cheese have done so only once or twice.

F. REASONS FOR IMITATION DAIRY PRODUCTS CONSUMPTION

- Motivations and reasons for consuming imitation dairy products differ in relation to dairy products and when compared to each other:

  - ***Frozen Desserts***: For A Change, Fewer Calories/Fat/Cholesterol, Like The Taste.

  - ***Soy-Based Cheese***: Fewer Calories/Fat/Cholesterol, Allergies To Milk, For A Change.

  - ***Margarine***: Fewer Calories/Fat/Cholesterol, Lower Price, Like The Taste, For Cooking.

  - ***Soy Or Rice-Based Drinks***: Like The Taste, For A Change, More Nutritious/Healthier, Allergies To Milk.

  - ***Coffee Whiteners***: When Dairy Product Runs Out, Use It At Work/Outside Home, More Convenient, Like The Taste.

  - ***Whipped Toppings***: Use It For Desserts, More Convenient, Like The Taste.

G. DESCRIPTIONS OF IMITATION DAIRY PRODUCTS

- The words "substitute," "imitation," "simulation" and "alternative" have been used to describe *imitation* dairy products, but these words do not apply to the entire category. Consumers tend to classify these products into:

  - ***Imitations Or Simulations***: have negative connotations; are associated with artificial or unnatural ingredients, may be *fake* dairy products.

  - ***Alternatives Or Substitutes***: thought to have nutritional value and can be used in place of dairy products; are acceptable products in their own right.

- Consumers use the words "alternative" or "substitute" more often than "imitation" or "simulation" to describe each of the six products presented in this survey. They consistently refer to margarine as a dairy "alternative" or "substitute," while coffee whiteners and whipped toppings are *either* "imitation" or "alternative" products. Many consumers are uncertain what to name less familiar products such as soy or rice-based drinks, soy-based cheese and non-dairy frozen desserts.

H. NEW PRODUCT POTENTIAL

- If a butter/margarine blend is sold at the same price as margarine, over one-half (55%) of consumers express interest in buying it. But, only 9% would buy it at the same price as butter. However, these findings do not take into account other significant factors such as promotion, product size, packaging, labelling and taste. These may be better predictors of success.

- Assuming a butter/margarine blend can successfully enter the market, it has some potential to affect butter and margarine sales; 24% of those who are likely to buy this product say they would buy less margarine, while 20% would buy less butter.

- The potential for a soy-based cheese at the same price as real cheddar cheese is weak; 38% of those who have not yet tried this express interest at this price point.

I. DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS

- Some of the demographic variables included in the research are important in terms of determining differences of opinion among various respondent segments. Age and education as well as household income were significant factors in the analysis, while other variables such as occupation, area of residence and household composition were not major determinants of variations in consumer opinion.

1. Age

- Consumption of all dairy products is lower for adults over the age of 55 years and they are also more likely to be eating fewer dairy products than they did a few years ago due to health concerns or reduced food consumption overall. This group is the least likely one to have tried any of the imitation dairy products. They are also more likely to look for fat, calorie and cholesterol content information on labels.

- Consumers 35 years of age and over are more likely to be stronger proponents of increased regulations and standards. Those aged 35 to 54 years read ingredients to avoid chemicals, preservatives and additives.

2. Education

- Those with higher levels of education are more likely to state nutritional reasons for eating dairy products and that they are consuming less of them. This group is also more likely to have tried soy or rice-based drinks, soy-based cheese and non-dairy frozen desserts. They have the least amount of difficulty distinguishing between real and imitation dairy products and more are supportive of unrestricted consumer choice.

- Unlike those with lower educational levels, this group reads ingredients on product labels and thinks this information is important in their purchase decisions. They look for chemicals, preservatives and additives on labels and they want even more information on dairy product labels than is presently provided.

For Detailed Results See General Summary

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III

GENERAL SUMMARY

A. DAIRY PRODUCTS CONSUMPTION

1. Types Of Dairy Products Consumed

Dairy products form an integral part of the North American diet and the vast majority (98%) of B.C. consumers[1] include at least one type of dairy product in their regular diets. Eight common dairy products were included in this study in order to define consumption habits. Overall, consumers usually eat an average of five dairy products[2]. Cheese is the most commonly used dairy product (93%) followed by milk[3] (76%) and ice cream (75%). Other dairy products consumed on a regular basis by over one-half of consumers include yogurt (63%), butter (60%), sour cream (57%) and cottage cheese (55%). However, just over one-third of consumers (36%) usually use cream.

Usage of dairy products varies according to several market characteristics. For instance, dairy users are more likely to be from households with children or teenagers. In terms of age, younger people (under the age of 35 years) are far more likely to drink milk and use butter than those from older age groups. Consumption of all dairy products, with the exception of cottage cheese, is lower for adults 55 years of age and older. Adults between the ages of 35 and 54 years appear to be those who choose the greatest variety of dairy products as they are more likely to eat cheese, yogurt, sour cream and ice cream than are other age groups. Those with allergies or sensitivities to dairy products, or those who have others in their household with this problem, are less likely to use milk or cream but are as likely as other consumers to eat other types of dairy products.

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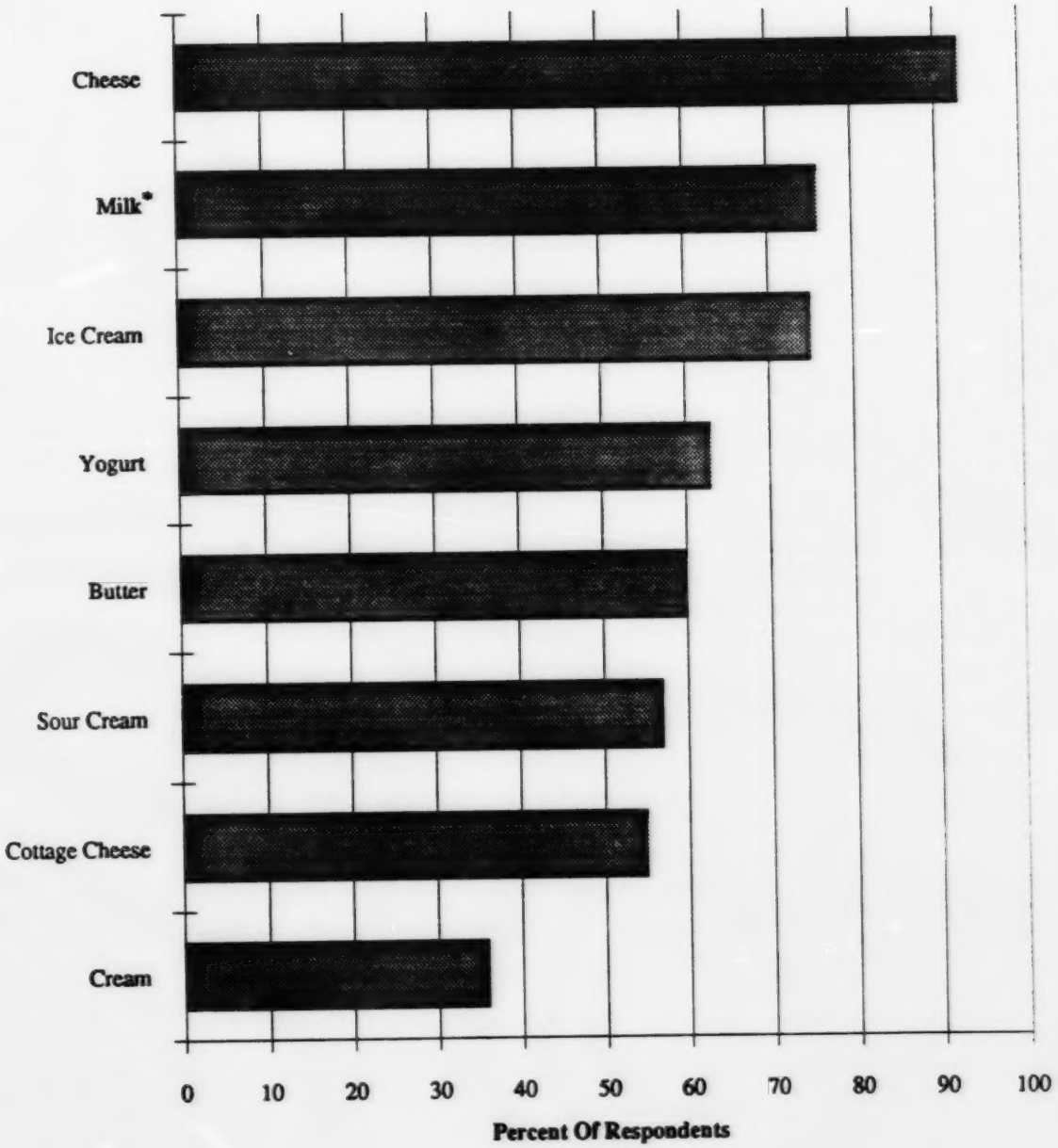
1 *Consumers refer to our relevant universe, which is B.C. adults over the age of 18 years.*

2 *Consumption habits have been self-defined by respondents and do not necessarily reflect actual volume of consumption. Rather, it is based on consumers' perception of their consumption levels.*

3 *Milk consumption does not include milk used in cereal or with tea or coffee.*

EXHIBIT A: 1

Percent Who Usually Eat ...



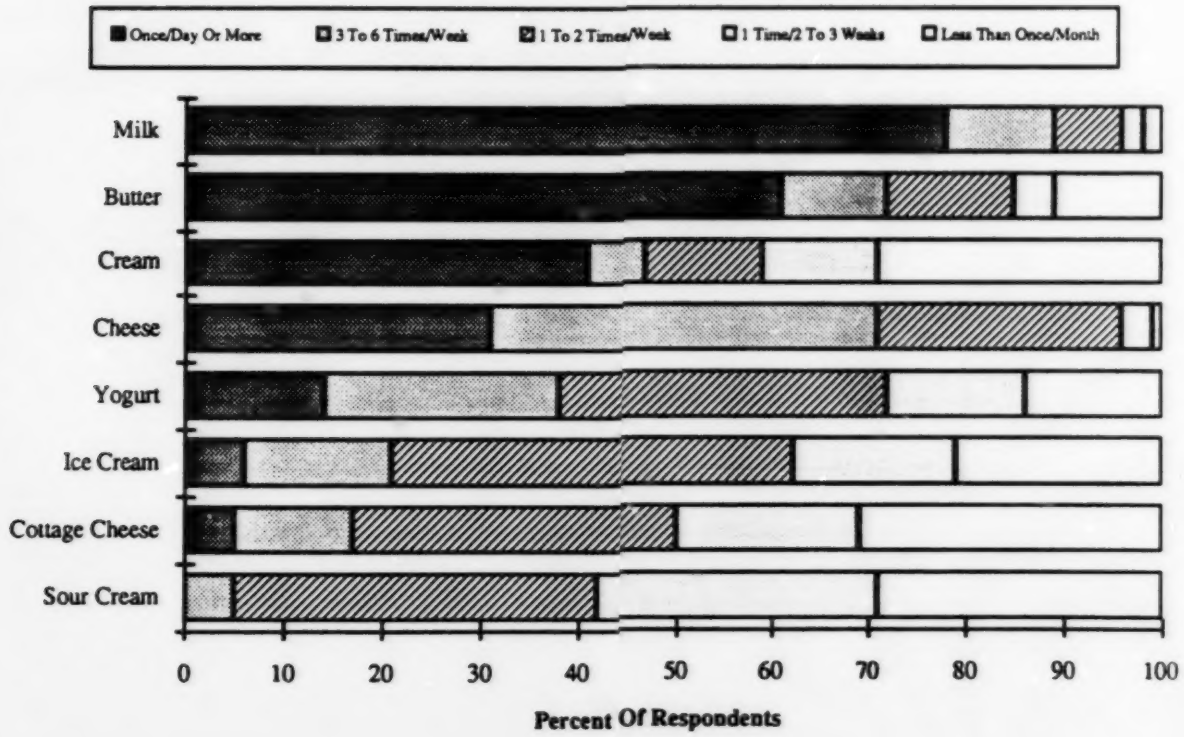
* *Excludes milk used in cereal or with tea or coffee.*

2. Frequency Of Consumption

In addition to differences in overall usage, the frequency of consumption differs significantly with the various types of dairy products. Of those who drink milk, the vast majority (78%) consume it on a daily basis. Other products which are consumed by a fairly large proportion of users on a daily basis include butter (61%), cream (40%) and cheese (30%). Yogurt is consumed less often as 34% of those who usually eat it have it once or twice a week. Products consumed least frequently include ice cream, cottage cheese and sour cream as nearly one-third of those who use them eat them once a month or less often.

EXHIBIT A: 2.1

Frequency Of Use Of Dairy Products



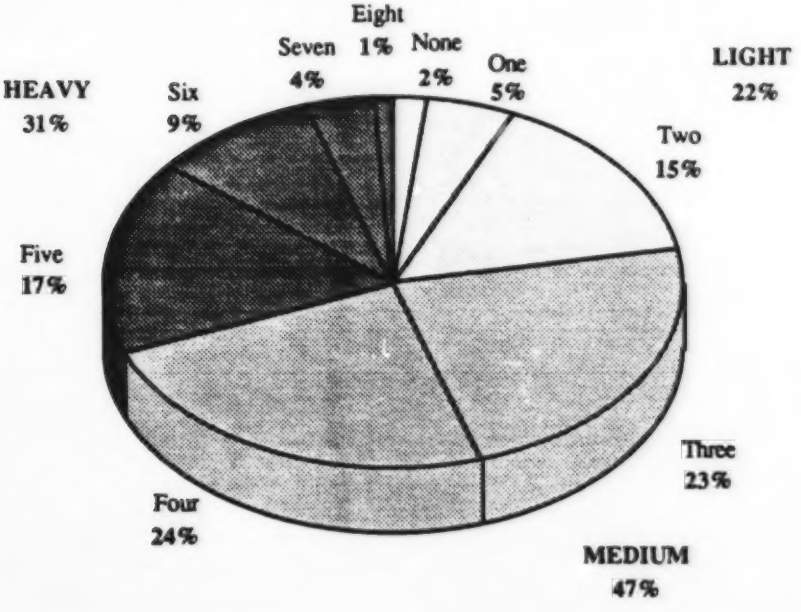
Dairy products users can be classified into three different groups according to their level of consumption of the eight different dairy products included in this study. This classification is used to identify any differences in consumer perceptions based on dairy products consumption and they are as follows:

- ***Light Users*: 22% of consumers**—those who eat none, one or two dairy products at least once per week.
- ***Medium Users*: 47% of consumers**—those who eat three or four dairy products at least once per week.
- ***Heavy Users*: 31% of consumers**—those who eat five, six, seven or eight dairy products at least once per week.

Overall, consumers eat an average of 3.8 dairy products at least once or twice per week. Heavy users tend to be from younger age groups, from households which have children and from households with higher levels of income.

EXHIBIT A: 2.2

Average Number Of Dairy Products Eaten At Least Once Or Twice Per Week



3. Reasons For Eating Dairy Products

Of those who eat any dairy products, three-quarters mention a very basic aspect; because they like the taste.

Various health and nutritional reasons are mentioned by a very high proportion (73%) of consumers. Just over one-third (34%) of consumers mention that it's healthy or good for you and 17% like the general nutritional aspects. Others are more specific in nutritional terms as 14% eat dairy products because they are a good source of calcium, 4% for the protein, 2% mention vitamin D and 2% because they are part of the four food groups.

Other reasons unrelated to health include the 11% who consume dairy products mainly out of habit and because they were raised on it. A further 10% mention that dairy products go well with other foods or that they are convenient.

Reasons for dairy products consumption differ according to one's level of education, occupation and level of dairy usage. A higher proportion of health and nutritional reasons are given among those with university educations, those who work in professional or business occupations and medium or heavy users of dairy products.

EXHIBIT A: 3

Main Reasons For Eating Dairy Products

	Percent Who Usually Eat Any Dairy Products	
Total - Actual	(976)	
	%	
Main Reasons For Eating Dairy Products:		
Like The Taste		75
Health/Nutrition Reasons:		
Healthy/Good For You	34	
General Nutrition	17	
Source Of Calcium	14	73
Source Of Protein	4	
Source Of Vitamin D	2	
Part Of Four Food Groups	2	
Habit/Brought Up On It		11
Goes Well With Other Foods		6
Convenient		4
Miscellaneous Mentions		10
No Particular Reason		*
Don't Know		3

* Equals less than one-half of one percent.

4. Reasons For Not Eating Dairy Products

Consumption of dairy products is nearly universal among consumers as only 2% of the general population (24 people out of 1,000 surveyed) never eat dairy products of any type. There are various reasons for not consuming any dairy products. Eight of the twenty-four do not because they have allergies to dairy products, five have a vegetarian diet and six mention other health reasons. Other reasons include concern about fat or cholesterol, the taste and so forth. The majority of non-users are from households with no children and are between the ages of 35 and 44 years.

Other barriers to consumption of dairy products are found among consumers who usually eat a limited number of dairy products. For the purposes of this research, respondents who usually eat three or fewer of the eight dairy products included in this study were asked why they don't eat more dairy products. This category comprises 17% of the total respondents.

About 50% of consumers who eat a limited number of dairy products give diet or health concerns as their reasons for not eating more dairy products. Nearly one-third of this group (32%) believe that they eat enough dairy products, they have no particular reason or they don't know why they don't consume more. Another 21% simply do not like the taste of dairy products in general or specific types of dairy products. A number of other miscellaneous reasons are given: that dairy products are simply not part of their diet (8%); that they are too expensive (5%); and, for a very few, that they have a vegetarian diet (2%).

EXHIBIT A: 4

Main Reasons For Not Eating More Dairy Products

	Percent Who Usually Eat Three Or Fewer Dairy Products	
Total - Actual	(169)	
	%	
Reasons For Not Eating More Dairy Products:		
Diet Or Health Concerns:		
Concern About Fat/Cholesterol	24	
Allergies Or Sensitivities To Milk	13	50
Other Health Reasons	11	
Vegetarian Diet	2	
Don't Like The Taste		18
Not Part Of Diet		8
Eat Enough Dairy Products		7
Too Expensive		5
Don't Like Other Dairy Products		3
Miscellaneous Mentions		3
No Particular Reason		10
Don't Know		15

5. Dairy Products Consumption Changes

Respondents were asked whether they believe that they are consuming more, less or about the same quantity of dairy products as they did a few years ago. Overall, 49% of consumers believe that their consumption of dairy products has remained unchanged. However, a slightly larger proportion (29%) claim to be eating fewer dairy products compared to 22% who claim to be eating more. Older people (55 years of age and older) tend to be eating less, while younger people (under 35 years of age) are eating more dairy products. Those eating more dairy products than before are also more likely to be from lower income households and households with children.

One of the predominant consumer trends in the past decade is the increase in the awareness of fat and cholesterol and their reported effect on health and longevity. Over three-quarters (77%) mention various health or diet concerns for decreasing their consumption of dairy products. The most prevalent reason mentioned in this study by 43% is their concern about fat and cholesterol levels. Other responses relating to health comprise an additional one-quarter of mentions as 11% say the reason is to stay healthy, 7% mention concern about heart or other diseases, while 5% are concerned about their diet and weight. Other unrelated reasons include 15% who indicate a decline in consumption of food in general, the expensive prices of dairy products (6%), the substitution of dairy with alternative products (4%) and so forth.

Compared to other age groups, older consumers (55 years of age and older) are more likely to give reasons such as they "don't eat as much in general" or they are concerned about heart or other diseases. Those between the ages of 35 and 54 years are more likely to state concerns about fat or cholesterol compared to the "under 35 years" group. Price is more of a factor among consumers outside of the ages of 35 to 54 years.

EXHIBIT A: 5.1

Main Reasons For Decreasing Dairy Products Consumption

	Percent Who Eat Less Dairy Products Than A Few Years Ago	
Total - Actual	(287)	
	%	
Reasons For Eating Less Dairy Products:		
Diet Or Health Concerns:		
Concern About Fat/Cholesterol	43	
Allergies/Reactions To Dairy Products	11	
To Stay Healthy	11	77
Concern About Heart/Other Diseases	7	
Diet/Concern About Weight	5	
Don't Eat As Much (General)		15
Products Too Expensive/High Priced		6
Eat Alternative Products		4
Don't Like The Taste		2
Miscellaneous Mentions		11
No Particular Reason		6
Don't Know		1

It is ironic that one of the main reasons for decreasing consumption of dairy products is the very same reason many are giving for increasing their consumption. Of the 22% who indicated that they have increased their consumption of dairy products in the past few years, the main reasons given by nearly one-half (49%) relate to improving their health. One-quarter mention specifically to improve their diet or health, while 13% mention to improve general nutrition; 11% said to increase their calcium intake.

A further 14% mention that the main reason for increased consumption is because of the taste, while others mention everything from the fact that some are nursing or pregnant, to having better incomes, having children, doing more cooking, to cutting down on meat.

EXHIBIT A: 5.2

Main Reasons For Increasing Consumption Of Dairy Products

	Percent Who Eat More Dairy Products Than A Few Years Ago	
Total - Actual		(213)
		%
Reasons For Eating More Dairy Products:		
Diet Or Health Concerns:		
To Improve Diet/Health	25	
For General Nutrition	13	49
For Calcium	11	
Like The Taste		14
Better Income/More Money To Spend		5
Kids		5
Started Eating More Dairy Products		5
Nursing/Pregnant		5
Cook More/Spend More Time At Home		4
Cut Down/Substitute For Meat		4
Convenient		4
Getting Older		3
Miscellaneous Mentions		15
No Particular Reason		7
Don't Know		4

6. Allergies Or Sensitivities To Dairy Products

Allergies to dairy products appear to affect about 10% of the adult population who claim they are allergic or sensitive to dairy products in some way. Surprisingly, these allergies have a relatively small impact on consumption of dairy products; 21% of those who have allergies are heavy users of dairy products; 43% are medium users and only 36% are classified as light users of dairy products. These proportions are only slightly different from the general population of consumers surveyed. This may suggest that the majority of those who are allergic to dairy products are afflicted with only minor symptoms and there are few who have severe allergic reactions. Most individuals with dairy allergies consume dairy products on a regular basis but, as pointed out in section A:1, although they consume slightly lower quantities of milk and cream, they are just as likely as other consumers to eat other types of dairy products.

On a household basis, about one-in-six households may contain one or more persons with sensitivity or allergies to dairy products. In the households which have at least one person allergic to dairy products, most (81%) have only one person with allergies. In 15% of these households, there are two people with allergies and only in a small number of instances (4%) is there three or more who are allergic to dairy products.

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B. IMITATION DAIRY PRODUCTS

1. Types Of Imitation Products Tried

In examining the six different imitation dairy products[4] included in this research, it is clear that trial and usage varies considerably between products. This indicates that there are three distinct sub-categories of imitation dairy products based on product trial. The most universal imitation dairy product, margarine, is well-established in consumption habits as it has been tried by 97% of consumers. A fairly high proportion (76%) of consumers have also used whipped toppings and coffee whiteners (62%), two products which are also fairly mainstream. Other imitation products are not as popular. For instance, only 31% have ever tried non-dairy frozen desserts, 19% have tried soy or rice-based drinks, while 14% of consumers have eaten soy-based cheese. (See Exhibit B: 1)

The *average* consumer has tried three of the six imitation dairy products included in this research. Certain segments of the population are more likely than others to have tried imitation products. Those who are either themselves allergic or sensitive to dairy products or have someone else in the household who is, are likely to have tried more imitation products such as soy or rice-based drinks or soy-based cheese. Consumers with higher levels of education are also far more likely than those with lower levels of education to have tried these two products in addition to non-dairy frozen desserts. Those over the age of 55 years are least likely to have tried any of the imitation dairy products.

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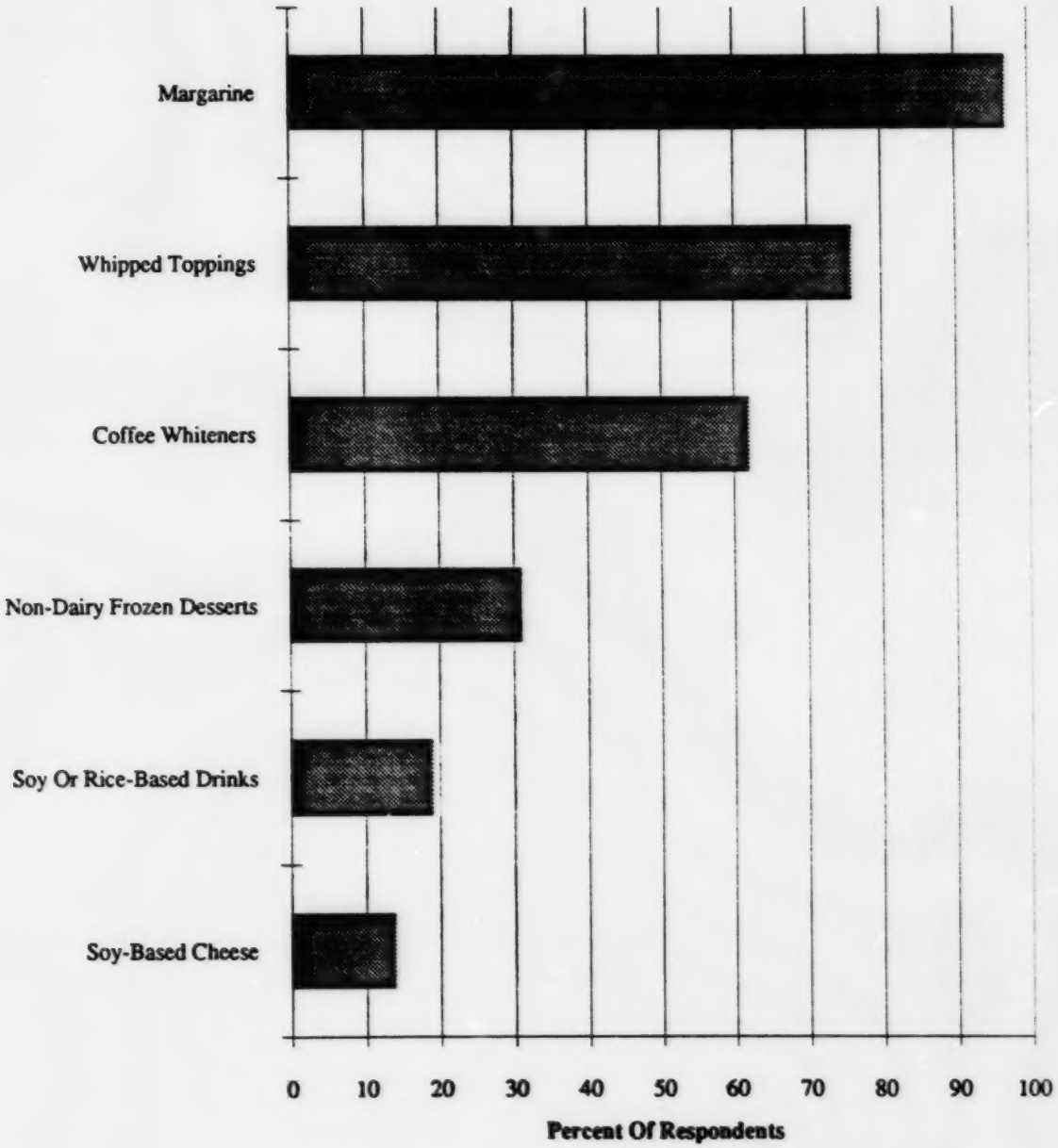
4 *The words 'imitation dairy products' are used to describe products which have an appearance similar to milk and milk products and/or are intended for similar use. For descriptive purposes in this report, we refer to an imitation dairy product or an imitation product. For further discussion, refer to section B: 4 and the "Report And Recommendations Of The Imitation Milk Products Review Committee."*

EXHIBIT B: 1

Percent Having Ever Tried Various Imitation Or Substitute Dairy Products



2. Frequency Of Consumption Of Imitation Products

The majority of those who have ever tried various specific imitation dairy products have used them only one or two times. Based on stated usage of selected imitation products, it seems that there is a very small segment of consumers who use these products on a regular basis.

Margarine is an exception as 58% use it once a day or more often. Coffee whiteners are used once a day or more often by 14% of those who have ever tried them, but the majority (57%) have only tried this product one or two times. Soy or rice-based drinks and soy-based cheese have been tried by less than one-quarter of consumers and are consumed even less frequently; nearly three-quarters of those who have tried either of these have tried them just once or twice. (See Exhibit B: 2)

Heavier users of dairy products appear to consume more imitation products on an overall basis. In addition, heavier users of imitation dairy products tend to be from adult-only households and are 35 years of age or older.

EXHIBIT B: 2

Frequency Of Use Of Imitation Products

	Percent Who Have Tried ...					
	Margarine	Coffee Whiteners	Soy Or Rice-Based Drinks	Frozen Desserts	Whipped Toppings	Soy-Based Cheese
Total - Actual	(969)	(620)	(187)	(310)	(759)	(142)
	%	%	%	%	%	%
Frequency Of Use:						
Once A Day Or More Often	**58**	**14**	4	1	-	-
Three To Six Times Per Week	9	4	3	1	*	3
Once Or Twice A Week	12	7	6	7	5	6
Once Every Two Or Three Weeks	4	4	2	5	8	3
Once A Month Or Less Often	6	15	11	**30**	**37**	15
Never/Only Tried Once/A Few Times	10	57	**74**	55	50	**73**
Don't Know	1	-	1	2	*	1

* Equals less than one-half of one percent.

Bold underlines have been used to denote unusually high figures at the 90% confidence level for horizontal comparisons in frequency of consumption between the six imitation products tabled.

3. Reasons For Consuming Various Imitation Dairy Products

As a product category, the reasons and motivations for consuming imitation dairy products are quite different from dairy products. However, the reasons for consuming different types of imitation products are also varied. Soy and rice-based drinks fit this latter category.

Three of the six imitation products (frozen desserts, soy-based cheese and margarine) have consumer appeal because they are perceived to be lower in calories, fat or cholesterol in relation to their dairy counterparts.

The imitation frozen desserts may have the added benefit of being a product which has a unique taste-appeal. The desire to consume soy-based cheese, on the other hand, seems justified mostly on the basis of its superior health characteristics. Soy or rice-based drinks have a small following of consumers who enjoy the taste, the difference and the added benefits of consuming a healthier beverage overall.

Margarine, by far the most widely used imitation product, is purchased primarily because it is perceived to be less expensive, lower cholesterol alternative to butter. Whipped toppings and coffee whiteners are products designed with consumer convenience in mind. The appealing taste of these products is also an advantage. Main reasons for purchasing the six different imitation dairy products are presented in Exhibit B: 3.

EXHIBIT B: 3

Main Reasons For Using Imitation Dairy Products

	Percent Who Eat Or Use ...					
	Soy Or Rice-Based Drinks	Whipped Toppings	Coffee Whiteners	Frozen Desserts	Soy-Based Cheese	Margarine
Total - Actual	(48)††	(376)	(267)	(134)	(38)††	(867)
	%	%	%	%	%	%
Main Reasons For Eating Or Using:						
Like The Taste	35	27	15	28	16	15
For A Change	**25**	3	2	**32**	18	1
More Nutritious/Healthier	**25**	•	-	3	11	5
Allergies To Milk	**21**	1	1	5	**18**	1
Less Calories/Fat/Cholesterol	8	9	2	**21**	**40**	**40**
For Protein	8	-	-	-	13	-
No Animal Association/Vegetarian	6	-	1	1	5	•
More Convenient	2	**23**	15	10	-	6
For Cooking	2	4	-	1	3	12
Lower Price	-	3	•	1	3	**32**
Use It At Work/Outside The Home	-	2	**35**	3	-	1
When Dairy Product Runs Out	-	•	**37**	-	-	7
Use It For Desserts	-	**34**	-	3	-	•
Miscellaneous Mentions	8	7	8	3	5	10
No Particular Reason	2	5	2	7	3	5
Don't Know	2	1	-	3	-	1

†† Data based on sample sizes of less than 50 should be interpreted with extreme caution.

• Equals less than one-half of one percent.

Bold underlines have been used to denote unusually high figures at the 90% confidence level for horizontal comparisons in main reasons for usage between the six imitation products tabled.

4. Descriptions Of Imitation Dairy Products

As mentioned in the "Report And Recommendations Of The Imitation Milk Products Review Committee," the actual definition and composition of imitation dairy products has not been fully established. Preliminary definitions have been adopted until the Federal Government has defined these products on a national basis.

The findings of the focus groups indicate that words such as substitute, alternative, imitation and simulations connote significantly different meanings and perceptions among consumers. As a result, it is misleading to use all four labels interchangeably. Consumers perceive that different imitation dairy products fall into distinct sub-segments including imitations/simulations, alternatives/substitutes, while margarine is a distinct and separate product in itself.

Imitations and simulations generally have a negative connotation and are associated products thought to contain largely artificial and unnatural ingredients. These products may be good tasting but they are assumed to have little nutritional value. In addition, consumers make little distinction between alternative and substitute products. These products are thought to have nutritional value and may be used in place of dairy products. (See Canadian Facts' Report Number RX224—"A Qualitative Evaluation Of Consumer Knowledge And Perceptions Regarding Imitation Milk Products"—March 1992)

In order to determine the vocabulary used to describe imitation dairy products, respondents in the telephone interviews were asked whether they would describe each product (soy or rice-based drinks, whipped toppings, coffee whiteners, non-dairy frozen desserts, soy-based cheese and margarine) as a substitute, an alternative, an imitation or a simulated product relative to their respective dairy counterparts. Results from the telephone survey both confirm and add to these initial findings. On an overall basis, the words *substitute* or *alternative* are used more often than *imitation* or *simulated* to describe each of the six products.

Margarine is the one product which consumers describe most consistently as an *alternative* or a *substitute*. When comparing margarine to butter, 44% refer to it as an *alternative* product and 40% say it is a *substitute*. A limited proportion of consumers (13%) refer to margarine as an *imitation* or *simulated* butter product (2% say they don't know).

With respect to whipped toppings and coffee whiteners, consumers are almost evenly split in how they refer to these products. About 47% regard them as *substitutes* and *alternatives* while another 47% see them as *imitation* and *simulated* versions of cream or whipped cream.

Many consumers don't know how to describe less familiar products. For instance, when asked which words they would use to describe soy or rice-based drinks versus milk or soy-based cheese in comparison to real cheese, over one-quarter (27%) do not know which words to use. Of those who did respond, the majority use the words *substitute* or *alternative* to refer to these products. Non-dairy frozen desserts are described in similar ways, although a smaller proportion (15%) claim they don't know which words to use. Excluding those who offered no opinion, 64% of consumers regard non-dairy frozen desserts as *substitute* or *alternative* products. (See Exhibit B: 4)

In terms of differences between different segments of the population, heavy and medium dairy products users are more likely than light users to perceive these different products to be imitations. Uncertainty about which descriptors are most appropriate for the various products is more prevalent among older consumers (55 years of age and over), those who are not employed and those from households with lower incomes.

EXHIBIT B: 4

Comparison Of Dairy And Imitation Dairy Products

	Words Used To Compare ...					
	Soy Or Rice-Based Drinks To Milk	Whipped Toppings To Whipped Cream	Coffee Whiteners To Cream Or Milk	Frozen Desserts To Ice Cream	Soy-Based Cheese To Cheese	Margarine To Butter
Total - Actual	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
	%	%	%	%	%	%
Comparing Non-Dairy To Dairy Products:						
A Substitute	22	25	32	21	19	**40**
An Alternative	29	21	16	33	26	**44**
Imitation	14	**34**	**30**	21	18	8
Simulated	7	**13**	**16**	9	9	5
None	2	1	1	1	2	1
Don't Know	**27**	6	6	**15**	**27**	2

Bold underlines have been used to denote unusually high figures at the 90% confidence level for horizontal comparisons between the pairs of products tabled.

5. Attitudes Towards Imitation Dairy Products And The Industry

Consumers were asked the extent to which they agreed or disagreed with a number of statements, many of which related to regulations and standards concerning imitation dairy products. In order to reduce the potential bias implied by the term imitation dairy products, the word "substitute" as well as "imitation" was used to describe this category of dairy products in each of the descriptive phases.

Most consumers have strong beliefs and are generally supportive of the regulations concerning the manufacturing and selling of imitation dairy products. In terms of labelling laws, 99% of consumers agree that regulations in Canada should require that all food products be labelled with lists of ingredients. The vast majority (91% "agree strongly") also believe that imitation dairy products should be clearly labelled *non-dairy*. In addition, 81% "agree strongly" that these products should not be permitted to use dairy terminology in their labelling when these products do not actually contain these ingredients.

Regarding restaurants, a large majority (73%) "agree strongly" that restaurants should be required by law to disclose if they are using imitation or substitute dairy products in their food preparation. Although opinions are not as clearly one-sided, the majority "agree strongly" (59%) or "somewhat" (24%) that there should be stricter regulations in the production, manufacturing and labelling of imitation or substitute dairy products.

Heavy dairy users are stronger proponents of regulations and standards for imitation products as are consumers in relatively older age categories (35 years of age and over). Other demographic variables are not significantly related to any differences in opinions.

Though consumers are clearly in favour of labelling, disclosure and manufacturing regulation, they do not currently have any difficulty distinguishing between real and imitation dairy products. In addition, many consumers believe in unrestricted choice in the market for imitation products. The results of the telephone interviews confirm these same findings from the focus groups.

When asked directly, almost two-thirds (65%) of consumers say they do not have any difficulty distinguishing between *true* dairy products and substitute or imitation products. In addition, the majority of consumers (59%) strongly believe that they should have unrestricted choice in buying substitute or imitation dairy products.

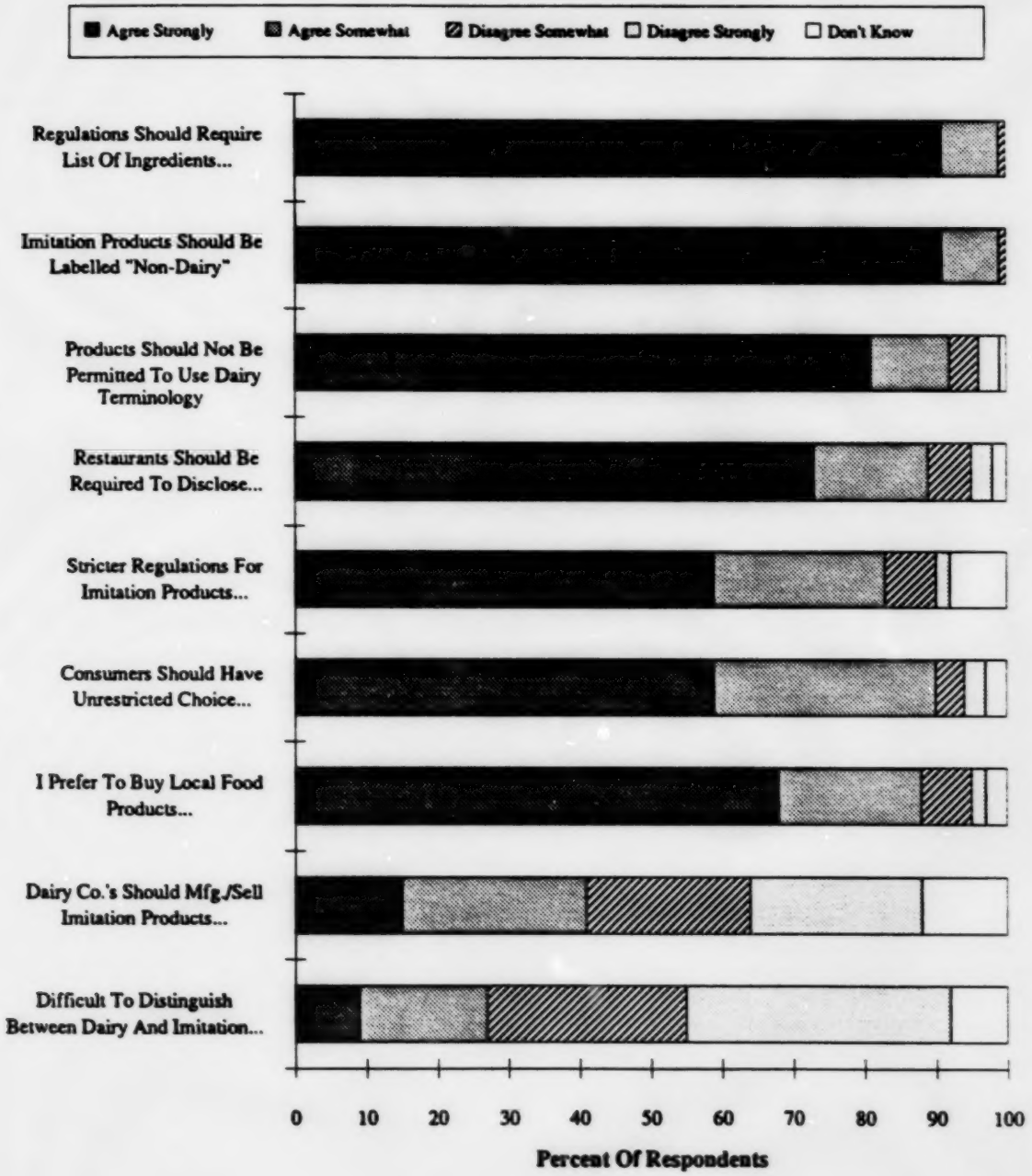
Consumers in higher income categories, with higher education and employment in professional and business occupations are most likely to have the least difficulty distinguishing between the two types of products. They are also more likely to support unrestricted consumer choice.

About the only issue where there was a large diversity of opinion is regarding the involvement of dairy companies in the manufacturing and selling of imitation dairy products. On an overall basis, a slightly smaller proportion (41%) think that they should be involved compared to the proportion who think they should not (47%). An additional 12% do not know. In the focus groups, it was determined that many who are opposed to the idea feel that the dairy companies would be competing against themselves, that the products are contradictory, or that it would be inappropriate for a dairy to market both.

In a related issue, it was found that the majority of consumers would prefer to buy local food products rather than imports. Just over two-thirds (67%) "agree strongly" with a statement regarding this, an additional 20% "agree somewhat," while only 12% are in disagreement. Interest in buying local food products was greatest among consumers outside of the Lower Mainland. This has positive implications for both dairy and non-dairy manufacturers in B.C. (See Exhibit B: 5)

EXHIBIT B: 5

General Opinions Towards Various Statements



C. PACKAGING AND LABELLING ISSUES

1. Product Label Ingredients

Product label ingredients are frequently read by consumers and often have a significant impact on purchase decisions. A relatively large proportion of consumers (39%) "always" read ingredients listed on different packaged food products, 39% "sometimes" read them, 15% "seldom" and only 7% "never" read them. Nearly one-half (45%) of consumers consider ingredients to be a "very important" factor in their decision to buy or eat a particular brand or type of product. An additional 36% consider ingredients to be "somewhat important" in the purchase decision, while only 10% think it is "not very important" and 2% think it is "not at all important." A further 7% "never" read ingredients listings so one can assume it is not an important factor in their purchase decisions[5].

The frequency of reading ingredients corresponds closely to the level of importance the ingredients are rated in the consumer's purchase decision. Of those who "always" read the ingredients, 75% feel the ingredients are "very important," while over one-half (52%) of those who "sometimes" read the ingredients say they are "somewhat important." Of those who "seldom" read the ingredients, 45% feel they are "somewhat important" and 42% think they are "not very" or "not at all important."

Distinct differences exist in the extent to which ingredients are read and the importance of the ingredients with respect to various market segments. As one would expect, those who are most likely to read product label ingredients and to think they are important are light dairy users, those who are (or someone else in the household is) allergic or sensitive to dairy products. In addition, older consumers, those with higher levels of education and those in professional and business occupations are also more likely to read and place importance on product labels and ingredients.

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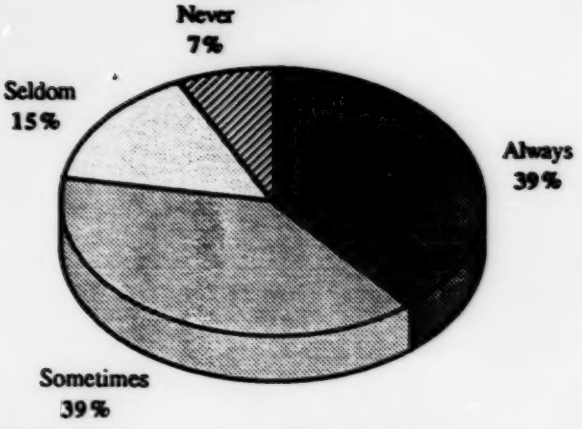
5 *Only those who claimed to read ingredients listed on different packaged food products "Always," "Sometimes," "Seldom" or answered "Don't Know" were asked how important the ingredients are in their decision to buy or eat a particular brand or type of product.*

EXHIBIT C: 1.1

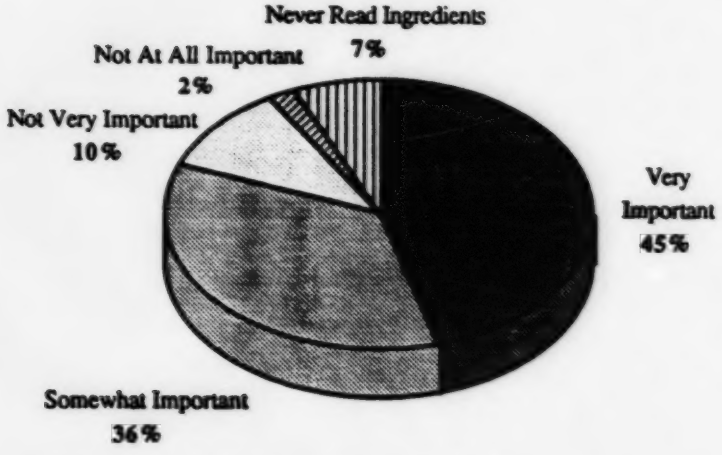
Frequency Of Reading Ingredients On Package*



* Percent of total respondents excluding "Don't Know" responses.

EXHIBIT C: 1.2

Importance Of Ingredients In Purchase Decision*



* Percent of total respondents excluding "Don't Know" responses.

2. Reasons For Reading Product Ingredients

Consumers are very interested in reading the ingredients on food packages mainly in order for them to determine if the food products they are consuming are nutritionally beneficial, natural and low in fat.

Many consumers (44%) are looking for specific nutritional information such as particular ingredients which are perceived to be undesirable. This includes sugar (20%), salt (10%), MSG (6%), food colouring (4%) and artificial sweeteners (4%). A further 29% are looking for general nutritional information, and they tend to be from younger age groups.

Another important reason mentioned by 40% for reading product label ingredients is to avoid chemicals, preservatives and additives. Focus group research results indicate that consumers are not entirely aware of how exactly these should be defined and tend to categorize any ingredients that they do not understand into this group. (See Canadian Facts' Report Number RX224—"A Qualitative Evaluation Of Consumer Knowledge And Perceptions Regarding Imitation Milk Products"—March 1992) Those who are prone to milk allergies are more likely than others to look for this information as are those between the ages of 35 to 54 years, consumers with higher levels of education and those work in professional or business occupations. Frequent readers of product label ingredients are more likely to look for this information.

There is a certain segment of consumers who are diet conscious as over one-third (36%) look specifically for information on fat, calorie and cholesterol content. These consumers are predominantly light dairy users and older consumers.

However, there are also those (23%) who read the ingredients out of general curiosity and just to see what is in it. This reason is more likely among less frequent readers of the ingredients, and those with lower levels of education. Only a few (4%) either have no particular reason or do not know why they read ingredients, 5% mentioned because of allergies and 11% gave various other miscellaneous reasons. (See Exhibit C: 2)

EXHIBIT C: 2

Main Reasons For Reading Product Ingredients

	Percent Of Consumers Who Read Product Ingredients	
Total - Actual	(926)	
	%	
Main Reasons For Reading Ingredients:		
Specific Nutritional Information:		
Sugar Content	20	
Salt Content	10	
To Avoid MSG	6	44
Food Colouring	4	
Artificial Sweeteners	4	
To Avoid Chemicals/Preservatives/Additives		40
Fat/Calorie/Cholesterol Content		36
General Nutritional Information		29
Because Of Allergies		5
General Curiosity/See What's In It		23
Other Reasons		11
No Particular Reason		3
Don't Know		1

3. Importance And Frequency Of Reading Fat Content Information

In addition to reading ingredients, there are a significant number of consumers who specifically read or look for fat content information on product labels.

One-third (33%) of consumers claim to "always" and 37% "sometimes" read or look for fat content information on food packages. Only 16% "seldom" and 14% "never" read or look for this information. In addition, nearly three-quarters (72%) of consumers claim that fat content information is either a "very important" (38%) or a "somewhat important" (34%) factor in their decision to buy or eat a particular brand or type of product. Only 14% think it is not very or not at all important. An additional 14% never read or look for fat content information, and as a result, are not likely to consider this information important[6]. (See Exhibits C: 3.1 And C: 3.2)

The frequency of reading fat content information and the importance of this information is closely correlated. Those who read or look at fat content information more frequently are also more likely to claim it is an important factor in the purchase decision. The vast majority (84%) of those who always read or look for fat content information say that it is a very important factor in their purchase decision. In addition, 62% of those who sometimes read it claim it is somewhat important. On the other hand, of those who seldom read this information, over one-half (56%) think it is not very or not at all important.

Differences in terms of the frequency of reading and the importance of fat content information exists among different segments. This segment of fat conscious consumers tends to be medium or light users of dairy products, from the lowest or the highest income households. In addition, the importance of fat content information increases significantly with age.

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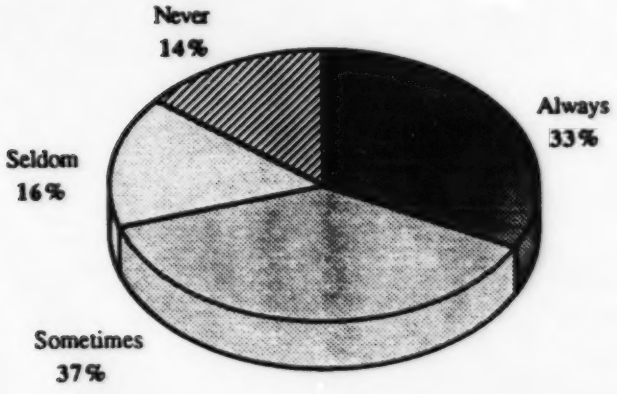
6 *Only those who claimed to read or look at fat content information on food packages "Always," "Sometimes," "Seldom" or answered "Don't Know" were asked how important fat content information is in their decision to purchase or eat a particular brand or type of product.*

EXHIBIT C: 3.1

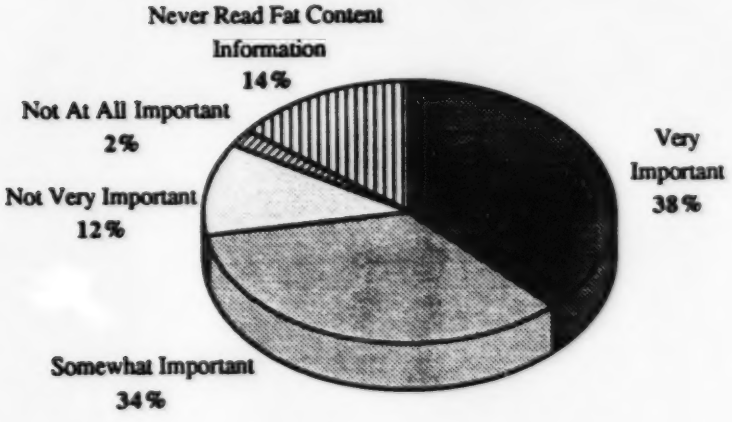
Frequency Of Reading Or Looking For Fat Content Information*



* Percent of total respondents excluding "Don't Know" responses.

EXHIBIT C: 3.2

Importance Of Fat Content Information In Purchase Decision*



* Percent of total respondents excluding "Don't Know" responses.

4. Preferences For Showing Fat Content Information

Currently, fat content information can be shown in three different ways on food products. In order to determine consumer preferences, respondents in this research were presented with the following description and question:

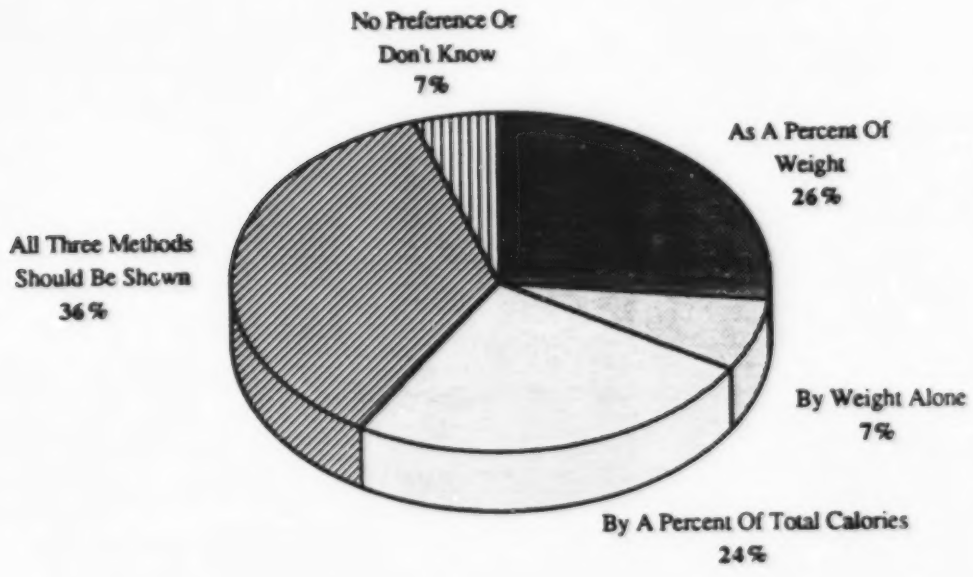
> *"Fat content information is often expressed on dairy and other product labels in different ways. It can be shown as a percentage of weight, for example, 2% milk fat, by weight alone, say 20 grams of fat, or by a percent of total calories as in fat represents 30% of total calories. Which method do you prefer fat content information to be shown?"*

Overall, the most preferred method of showing the fat content of products is to show all three forms of the information. This was mentioned by over one-third (36%) of consumers. Nearly one-quarter (24%) prefer fat content to be shown as a "percent of total calories" and 26% as "a percent of weight." The least preferred method is "by weight alone" (only 7% preferred this option). An additional 7% had no preference or did not know their preference. (See Exhibit C: 4)

Heavy and medium dairy users are more likely than others to prefer the fat content to be shown as a "percent of weight," most likely because that is what they are used to in most dairy products. Those with higher levels of education are also more likely to prefer fat content information in this format.

EXHIBIT C: 4

Preference For Method Indicating Fat Content*



* Percent who read or look at fat content information "Seldom," "Sometimes" or "Always."

5. Suggested Improvements For Dairy And Imitation Dairy Product Labels

Most consumers feel that there is enough information provided on both dairy product labels and on imitation dairy product labels. Over three-quarters of consumers (78%) feel there is enough information on dairy labels, 16% say "no" and 6% "don't know." Based on their experience or impressions of substitute or imitation products, the majority (56%) feel that there is also enough information on these labels. However, a larger proportion of consumers (21%) feel there is not enough information on imitation dairy product labels versus dairy product labels. About one-quarter (24%) of consumers say they don't know if imitation dairy products have enough information on their labels.

With dairy product labels, medium users are more likely to feel that enough information is provided. Light and heavy users, those with higher levels of education and those who have allergies to dairy products are more inclined to feel that not enough information is provided. With imitation dairy product labels, there are no significant differences of opinion between different consumer segments.

Of those who feel that not enough information is provided on these product labels, a wide variety of suggestions for improvements have been made. For both dairy and imitation product labels, about one-half feel that more detail should be given, along with more nutritional information. Many suggest making the information easier to understand by avoiding or limiting the use of technical or scientific terms. Other suggestions include showing more calories/fat content, improving accuracy and consistency, listing all ingredients and having larger print. Though consumers agree that imitation dairy product labels could also benefit from more detail and more nutritional information, they are more likely to identify a need for more *plain language* and accuracy in these labels. As shown in Exhibit C: 5, a total of 51% of consumers feel labels on imitation dairy products should be "easier to understand" or less technical and that the accuracy should be improved. (See Exhibit C: 5)

EXHIBIT C: 5

How Product Labels Could Be Improved

	Percent Who Feel There Isn't Enough Information On ...	
	Dairy Labels	Substitute/Imitation Dairy Labels
Total - Actual	(161)	(208)
	%	%
How Labels Could Be Improved:		
Show More Detail	30	32
Show Calories/Fat Content	**30**	14
More Nutritional Information	19	20
Easier To Understand/Don't Use Technical/Scientific Terms	17	**38**
Be More Consistent/More Standardization	7	5
Improve Accuracy	6	**13**
List All Ingredients	**6**	1
Larger Print	6	4
Show Proportions/Percentages Of Ingredients	3	1
State Product Origin	3	1
Show Expiry Dates	2	1
Show Chemicals/Additives/Preservatives Used	1	3
Miscellaneous Mentions	17	16
Can't Think Of Any Improvements/Don't Know	10	11

Bold underlines have been used to denote unusually high figures at the 90% confidence level for horizontal comparisons between the two types of labels above.

D. NEW PRODUCT POTENTIAL

1. Likelihood Of Purchasing Butter/Margarine Blend

In order to determine preliminary market interest for a potential blended butter/margarine product, consumers were asked their likelihood of buying this kind of product at different theoretical price points. This information will be useful in determining the potential for this product which is currently not permitted for sale in British Columbia.

In order to measure purchase intentions, the following statement was read to all respondents:

> *"In some places outside of B.C., a product is sold which is made of a blend of butter and margarine. If this product were available in a blend of 50% butter and 50% margarine, how likely would you be to buy it if it were priced at about the same price as margarine (or $1.20 per pound)? Would you say you would be very likely, somewhat likely, not very likely or not at all likely?"*

Overall, the lower the price of this product, the greater the likelihood of purchase. However, it is clear that price is a factor in the purchase decision of many consumers, but this does not take into account other variables such as promotion, packaging, taste, size, and relative comparisons between other products. These elements are known to have a significant influence on product demand and market success.

At the lowest price point, over one-half (55%) are likely to purchase the product, but at a price the same as butter (or $2.80 per pound), that proportion drops to 9%. The largest decrease in purchase intentions relative to price increase is between $1.80 and $2.30, so it seems as though $1.80 would be the optimal price. (See Exhibit D: 1.1)

Based on the initial product concept (priced the same as margarine) certain segments of the population are more inclined to purchase this product. This group includes heavy dairy users, households with teenagers or children and those in younger age categories. Differences are not as significant once higher price points are introduced.

In conclusion, the overall likelihood of a butter/margarine blend being universally accepted (even at an attractive purchase price) is low. The largest proportion of likely purchasers was registered at the $1.20 price point. However, 55% of respondents indicating a positive intent to purchase would not be sufficient to warrant[7] introduction of this kind of product as a mass consumption entry.

EXHIBIT D: 1.1

Likelihood Of Purchasing Butter/Margarine Blend At Different Prices

	Percent Of Consumers Likelihood Of Purchasing If Price ...			
	$1.20	$1.80	$2.30	$2.80
Total - Actual	(1,000)	(1,000)	(1,000)	(1,000)
	%	%	%	%
Likelihood Of Purchasing:				
Very Likely	**25**	**17**	3	2
Somewhat Likely	**30**	**29**	14	7
Not Very Likely	14	15	**25**	15
Not At All Likely	30	8	**17**	**20**
Unlikely To Purchase At Lower Price	N/A	30	38	55
Don't Know	2	2	3	2

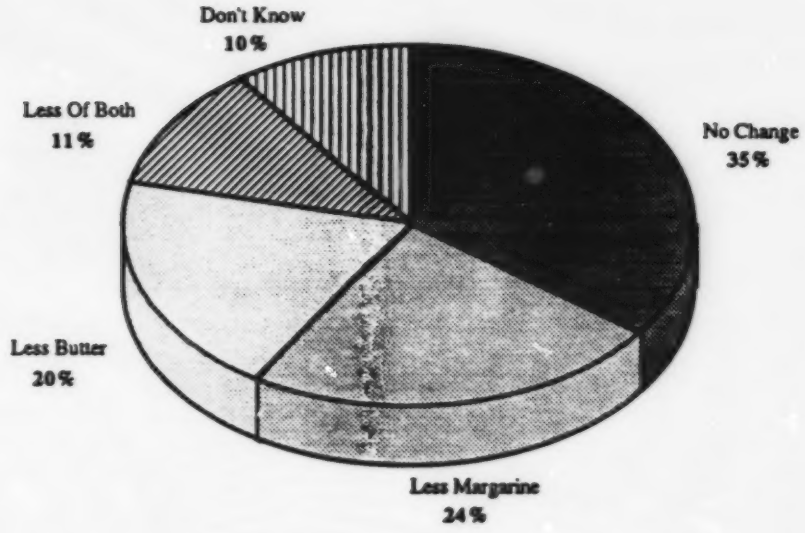
Bold underlines have been used to denote unusually high figures at the 90% confidence level for horizontal comparisons between the four types of labels above.

7 *A rule of thumb for assessing new product viability is 80 plus percent likelihood of purchase score.*

The successful introduction of a new blended imitation dairy product will affect the market for both butter and margarine. Of those who indicated they are "somewhat" or "very likely" to purchase a butter/margarine blend, over one-third (35%) claim it will not affect their purchases of butter or margarine. A slightly larger proportion (24%) say they would purchase less margarine than those who would purchase less butter (20%) and 11% would reduce their purchases of both products, while 10% don't know.

EXHIBIT D: 1.2

Changes In Purchases Of Butter And Margarine If Blended Products Purchased*



* Percent who are "Very" or "Somewhat Likely" to purchase product based on concept.

2. Likelihood Of Purchasing Soy-Based Cheese

Potential for a soy-based cheese product was also explored in order to determine the purchase intentions and price elasticity of demand for consumers who have never tried soy-based cheese.

In order to measure purchase intentions, the following statement was read to all respondents:

> *"Another new product is a soy-based cheddar cheese flavoured product which is similar in taste, texture and looks to real cheddar cheese. The difference is that it is made of tofu and vegetable oil replaces the milk fat. Based on this concept, how likely would you be to buy it if it were about the same price as real cheddar cheese (or about $1.15 per 100 grams)? Would you say you would be very likely, somewhat likely, not very likely or not at all likely?"*

Based on the product concept, a total of 38% of consumers are either "very" (14%) or "somewhat likely" (24%) to purchase the product. However, in consideration of the fact that 14% of consumers have already tried this product, the total proportion of product triers might be over one-half, or 52%. However, consumers in the focus groups report significant taste and texture differences between real cheese and soy-based cheddar cheese. It is entirely likely that these factors (either experienced or based on hearsay) would over-ride any possible price advantage this product could have over cheddar cheese. Further, the demand and characteristics of this type of product place it in a "specialty" category and an unlikely replacement for cheddar cheese. (See Canadian Facts' Report Number RX224—"A Qualitative Evaluation Of Consumer Knowledge And Perceptions Regarding Imitation Milk Products"—March 1992)

When various price points are introduced, the proportion of consumers who are likely to purchase the product changes. With a 30 cent increase per 100 grams in the introductory price, the proportion of those who are "very" or "somewhat likely" to purchase the product falls to 21%, which is just over one-half of the proportion likely to purchase at the $1.15 price. (See Exhibit D: 2)

EXHIBIT D: 2

Likelihood Of Purchasing Soy-Based Cheese At Different Prices

	Percent Of Consumers Who Have Not Tried Soy-Based Cheese Likelihood Of Purchasing If Price ...	
	$1.15	$1.45
Total - Actual	(855)	(855)
	%	%
Likelihood Of Purchasing:		
Very Likely	**14**	5
Somewhat Likely	**24**	16
Not Very Likely	17	16
Not At All Likely	41	19
Unlikely To Purchase At Lower Price	N/A	41
Don't Know	3	3

Bold underlines have been used to denote unusually high figures at the 90% confidence level for horizontal comparisons between the two types of labels above.

If consumers indicated that they were at all likely to purchase the soy-based cheese based on the product concept, they were asked whether or not it would change the amount of cheese they purchase[8]. While most (48%) indicated that their consumption levels would remain the same, 40% claimed that it would change the amount of cheese they purchase, while 12% don't know. Those with higher levels of education, in professional and business occupations and between the ages of 35 and 54 years are more likely than others to change the amount of cheese they purchase.

8 *Repeat purchases would be highly influenced by the taste differences between cheddar and soy-based cheddar cheese.*

3. Limitations

The limitations of this research on new product potential are many and should be taken into account when evaluating the results and the findings.

In both product pricing scenarios, if respondents said they were "not at all likely" to purchase this product at a given price point, they were skipped to the next question. The critical assumption made in this skip pattern is that if consumers are "not at all likely" to purchase at a given price point, then they would also be "not at all likely" to purchase at a higher price point.

Another limitation is that consumers often find it difficult to conceptualize the product at the different price points, particularly when the product is a new idea or unfamiliar to them. For instance, many of the respondents had never heard of either of two products, and were basing their answers on the very limited information provided in the product concept statements. Research of this nature is typically conducted in other interview settings, where consumers can take into account other important variables such as the product size, packaging, and labelling, and taste. Since purchase intentions in this research are examined in isolation of these other variables, the implications are very limited.

Lastly, purchase intentions tend to be over-inflated in marketing research. That is, if the product were to enter the market, a substantially lower proportion would actually purchase it compared to those who say they would. This is because other market variables such as the marketing, promotion, distribution, product characteristics and competition play significant roles in determining market success.

E. ANALYSIS OF SAMPLE POPULATION DEMOGRAPHIC VARIABLES

Important differences in consumer opinions, consumption habits and attitudes have been examined in this report in relation to a number of demographic variables. Some of these variables including age, level of education and total household income were significant in terms of the cross-analysis. Differences based on these key demographic variables helped to identify particular market segments, which in turn have implications for future marketing strategies. However, these key variables are correlated to other variables, so they cannot be viewed in isolation. Other variables such as occupation, area of residence and household composition were not as significant in terms of identifying any major statistical differences. The following helps to identify relationships between pairs of variables based on the respondents included in this study.

A fairly wide representation of different age groups were included in this study, as 39% were under the age of 35 years; 37% were between 35 and 54 years; and 23% were 55 years of age or older. In terms of differences relative to other variables, a larger proportion of senior citizens included in this study live on Vancouver Island and other parts of B.C. compared to the Lower Mainland. Those under 35 years, or 55 years and over are more likely to have lower levels of education than those between the ages of 35 and 44 years. The most pronounced differences exist with respect to household income. While those under the age of 35 years represent 39% of the sample population, they in turn comprise 46% of households with incomes of less than $30,000 per year. Respondents 55 years of age or older also make up a disproportionately higher number (31%) of households with this level of income relative to their representation in the survey population (23%). Those between the ages of 35 and 54 years of age are far more likely to be from middle to upper income households, as they represent only 37% of the sample but over one-half (54%) of households with annual incomes of $60,000 or more. (See Exhibit E)

In terms of education, those with a high school diploma or less comprise 46% of respondents included in this study, while over one-third (34%) have at least some technical college or university and 20% have graduated from university.

Differences also exist in terms of consumers' level of education in relation to other variables. A larger proportion of university graduates live in the Lower Mainland and Vancouver Island, they are more likely to be from households with children under 12 years or adults only and work in professional or business related occupations. Consumers' level of education is also highly correlated to household income. Although only 20% of consumers claim to have graduated from university, they represent 34% of households with annual incomes of over $60,000 and only 8% of households with annual incomes of less than $30,000. On the other hand, consumers with a high school education or less make up 46% of the population, but comprise over one-half (53%) of households earning less than $30,000 per year.

EXHIBIT E

Characteristics Of Respondents

		Percent Of Consumers By Level Of Household Income ...		
	Total	Less Than 30K	30K To 50K	60K+
Total - Actual	(1,000)	(261)	(345)	(212)
	%	%	%	%
Age Of Respondent:				
Under 34 Years	39	**46**	40	37
35 To 54 Years	37	22	**39**	**54**
55 Years And Older	23	**31**	20	9
Refused	1	1	1	-
Level Of Education:				
High School Or Less	46	**53**	46	35
Some Technical/University/ Graduated College	34	38	37	31
Graduated University	20	8	17	**34**
Refused	1	1	-	-

Bold underlines have been used to denote unusually high figures at the 90% confidence level for horizontal comparisons between the two types of labels above.

IV

APPENDIX TO THE METHODOLOGY

A total of 1,000 telephone interviews was conducted with B.C. residents age 18 years of age and older between April 3 and 20, 1992.

All interviews were conducted by trained, experienced interviewers working from Canadian Facts' Central Location Telephone (CLT) facility in Vancouver where interviewing is continually monitored and supervised. Interviews were conducted using Canadian Facts' Fully Automated Computer Telephone Surveys (FACTS) network.

A proportionate random sample of 1,000 households in B.C. was selected from a current telephone directory of B.C. residents. A book-plus-digit technique was used for urban areas containing populations of 10,000 or more. Use of this method ensures the inclusion of newly-listed and unlisted telephone numbers in the sample. Sample from rural areas with populations less than 10,000 was randomly selected using a straight book technique from current telephone directory listings.

Prior to the start of interviewing, a pretest was conducted to ensure the workability of the questionnaire and to finalize question wording and sequencing. This pretest was conducted on April 2, 1992 and was monitored by Canadian Facts' Client Service representatives. Minor adjustments were made to the questionnaire on the basis of these pretest results.

Once a household had been contacted, the Most Recent Birthday method of selection was employed to randomly select the adult in the household to be interviewed.

The results of the last call attempts made to each respondent are detailed in the following table:

	Record Of Call	
	Number	Percent
Total Sample -	(3,229) #	(100) %
Record Of Final Call Attempts:		
Not In Service	533	17
Busy	12	*
No Answer	374	12
Appointments	119	4
Non-Residential Number	317	10
Language Problems	87	3
Initial Refusals	582	18
Selected Respondent Not Available	127	4
Respondent Ill/Never Available	52	2
No Person 18 Years Or Over	10	*
Terminated (Other Reason)	16	1
Completed Interview	1,000	31

* Equals less than one-half percent.

All calls were placed in the afternoons and evenings between 4:30 p.m. and 9:30 p.m. on weekdays and between 10:00 a.m. and 4:00 p.m. on Saturdays to ensure the inclusion of working individuals.

Up to four calls were made to each household in an attempt to obtain a completed interview with selected respondents, thus increasing the possibility of completing interviews with individuals frequently not at home.

The overall sampling error at the 90% confidence level is approximately ± 2.6% for data based on the total sample, and higher when examining differences between various subgroups. For example, if 50% of all respondents surveyed claim they are using a particular dairy product, then we can be sure, nine times out of ten, that if the entire population had been interviewed the proportion would lie between 47% and 53%.

Validation consisted of Vancouver CLT supervisors monitoring "live" interviews. Approximately 15% of the telephone interviews were either partially or completely monitored.

The resultant data was edited, coded and processed using Canadian Facts' FACTS network in Vancouver.

A copy of the final questionnaire used in the interviewing and interviewer's instructions are appended to this report.